

FIG. 1

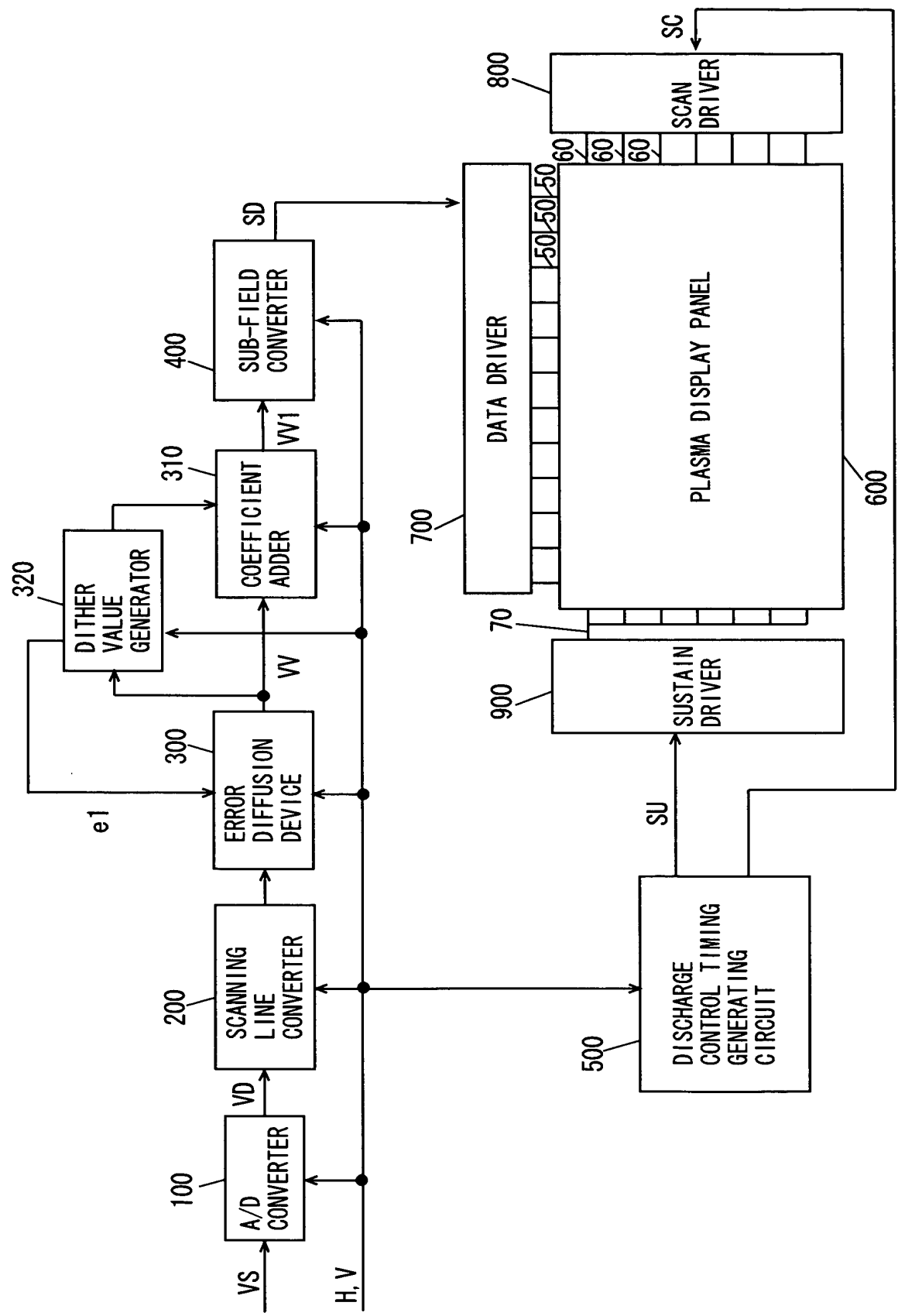


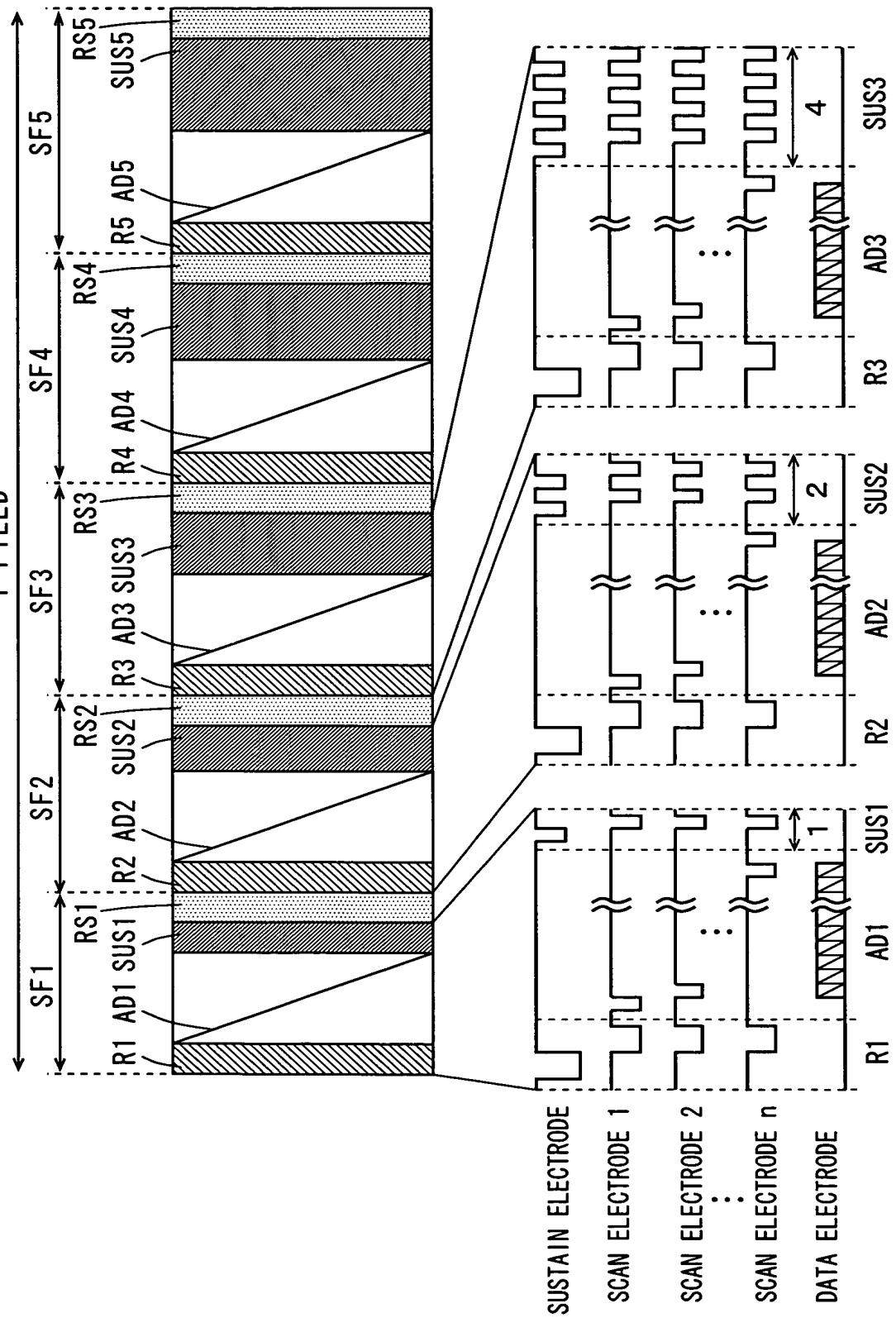
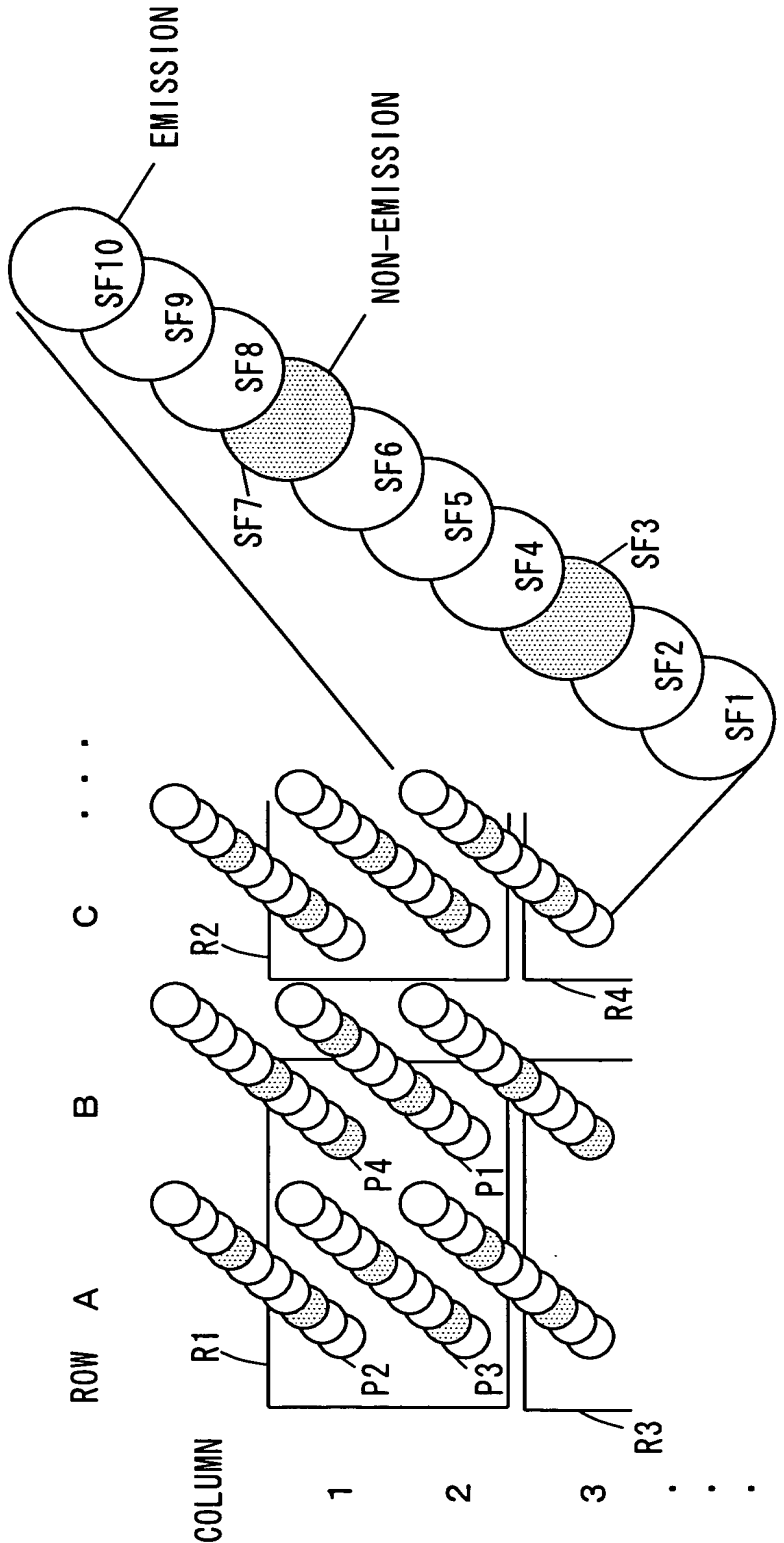
FIG. 2
1 FIELD

FIG. 3



F i g . 4 a

GRAY SCALE LEVEL	SUB- FIELD	10	9	8	7	6	5	4	3	2	1	FIRST DITHER VALUE
	WEIGHT	512	256	128	64	32	16	8	4	2	1	
958	887	1	1	0	1	1	1	0	1	1	1	-71
959	887	1	1	0	1	1	1	0	1	1	1	-72
960	894	1	1	0	1	1	1	1	1	1	0	-66
961	894	1	1	0	1	1	1	1	1	1	0	-67
962	894	1	1	0	1	1	1	1	1	1	0	-68
963	895	1	1	0	1	1	1	1	1	1	1	-68
964	895	1	1	0	1	1	1	1	1	1	1	-69
965	895	1	1	0	1	1	1	1	1	1	1	-70
966	895	1	1	0	1	1	1	1	1	1	1	-71
967	895	1	1	0	1	1	1	1	1	1	1	-72
968	895	1	1	0	1	1	1	1	1	1	1	-73
969	895	1	1	0	1	1	1	1	1	1	1	-74
970	938	1	1	1	0	1	0	1	0	1	0	-32
971	938	1	1	1	0	1	0	1	0	1	0	-33
972	943	1	1	1	0	1	0	1	1	1	1	-29
973	939	1	1	1	0	1	0	1	0	1	1	-34
974	943	1	1	1	0	1	0	1	1	1	1	-31
975	943	1	1	1	0	1	0	1	1	1	1	-32

FIRST GRAY SCALE
VALUE

FIRST EMISSION PATTERN

Fig. 4b

GRAY SCALE LEVEL	SUB- FIELD	10	9	8	7	6	5	4	3	2	1	SECOND DITHER VALUE
	WEIGHT	512	256	128	64	32	16	8	4	2	1	
958	950	1	1	1	0	1	1	0	1	1	0	-8
959	955	1	1	1	0	1	1	1	0	1	1	-4
960	951	1	1	1	0	1	1	0	1	1	1	-9
961	955	1	1	1	0	1	1	1	0	1	1	-6
962	959	1	1	1	0	1	1	1	1	1	1	-3
963	959	1	1	1	0	1	1	1	1	1	1	-4
964	959	1	1	1	0	1	1	1	1	1	1	-5
965	959	1	1	1	0	1	1	1	1	1	1	-6
966	959	1	1	1	0	1	1	1	1	1	1	-7
967	959	1	1	1	0	1	1	1	1	1	1	-8
968	959	1	1	1	0	1	1	1	1	1	1	-9
969	959	1	1	1	0	1	1	1	1	1	1	-10
970	949	1	1	1	0	1	1	0	1	0	1	-21
971	951	1	1	1	0	1	1	0	1	1	1	-20
972	950	1	1	1	0	1	1	0	1	1	0	-22
973	958	1	1	1	0	1	1	1	1	1	0	-15
974	958	1	1	1	0	1	1	1	1	1	0	-16
975	959	1	1	1	0	1	1	1	1	1	1	-16

SECOND GRAY SCALE LEVEL

SECOND EMISSION PATTERN

Fig. 4c

GRAY SCALE LEVEL	SUB- FIELD	10	9	8	7	6	5	4	3	2	1	THIRD DITHER VALUE
	WEIGHT	512	256	128	64	32	16	8	4	2	1	
958	989	1	1	1	1	0	1	1	1	0	1	31
959	989	1	1	1	1	0	1	1	1	0	1	30
960	989	1	1	1	1	0	1	1	1	0	1	29
961	989	1	1	1	1	0	1	1	1	0	1	28
962	989	1	1	1	1	0	1	1	1	0	1	27
963	989	1	1	1	1	0	1	1	1	0	1	26
964	989	1	1	1	1	0	1	1	1	0	1	25
965	989	1	1	1	1	0	1	1	1	0	1	24
966	989	1	1	1	1	0	1	1	1	0	1	23
967	989	1	1	1	1	0	1	1	1	0	1	22
968	989	1	1	1	1	0	1	1	1	0	1	21
969	989	1	1	1	1	0	1	1	1	0	1	20
970	989	1	1	1	1	0	1	1	1	0	1	19
971	989	1	1	1	1	0	1	1	1	0	1	18
972	989	1	1	1	1	0	1	1	1	0	1	17
973	989	1	1	1	1	0	1	1	1	0	1	16
974	989	1	1	1	1	0	1	1	1	0	1	15
975	989	1	1	1	1	0	1	1	1	0	1	14

THIRD GRAY SCALE
LEVEL

THIRD EMISSION PATTERN

F i g . 4 d

GRAY SCALE LEVEL	SUB- FIELD	10	9	8	7	6	5	4	3	2	1	FOURTH DITHER VALUE
	WEIGHT	512	256	128	64	32	16	8	4	2	1	
958	1006	1	1	1	1	1	0	1	1	1	0	48
959	1006	1	1	1	1	1	0	1	1	1	0	47
960	1006	1	1	1	1	1	0	1	1	1	0	46
961	1006	1	1	1	1	1	0	1	1	1	0	45
962	1006	1	1	1	1	1	0	1	1	1	0	44
963	1006	1	1	1	1	1	0	1	1	1	0	43
964	1006	1	1	1	1	1	0	1	1	1	0	42
965	1006	1	1	1	1	1	0	1	1	1	0	41
966	1006	1	1	1	1	1	0	1	1	1	0	40
967	1006	1	1	1	1	1	0	1	1	1	0	39
968	1006	1	1	1	1	1	0	1	1	1	0	38
969	1006	1	1	1	1	1	0	1	1	1	0	37
970	1006	1	1	1	1	1	0	1	1	1	0	36
971	1006	1	1	1	1	1	0	1	1	1	0	35
972	1006	1	1	1	1	1	0	1	1	1	0	34
973	1006	1	1	1	1	1	0	1	1	1	0	33
974	1006	1	1	1	1	1	0	1	1	1	0	32
975	1006	1	1	1	1	1	0	1	1	1	0	31

FOURTH GRAY SCALE
LEVEL

FOURTH EMISSION PATTERN

F i g . 4 e

GRAY SCALE LEVEL	FIRST GRAY SCALE VALUE	SECOND GRAY SCALE LEVEL	THIRD GRAY SCALE LEVEL	FOURTH GRAY SCALE LEVEL	AVERAGE VALUE	ERROR
958	887	950	989	1006	958	0.00
959	887	955	989	1006	959.25	-0.25
960	894	951	989	1006	960	0.00
961	894	955	989	1006	961	0.00
962	894	959	989	1006	962	0.00
963	895	959	989	1006	962.25	0.75
964	895	959	989	1006	962.25	1.75
965	895	959	989	1006	962.25	2.75
966	895	959	989	1006	962.25	3.75
967	895	959	989	1006	962.25	4.75
968	895	959	989	1006	962.25	5.75
969	895	959	989	1006	962.25	6.75
970	938	949	989	1006	970.5	-0.50
971	938	951	989	1006	971	0.00
972	943	950	989	1006	972	0.00
973	939	958	989	1006	973	0.00
974	943	958	989	1006	974	0.00
975	943	959	989	1006	974.25	0.75

FIG. 6

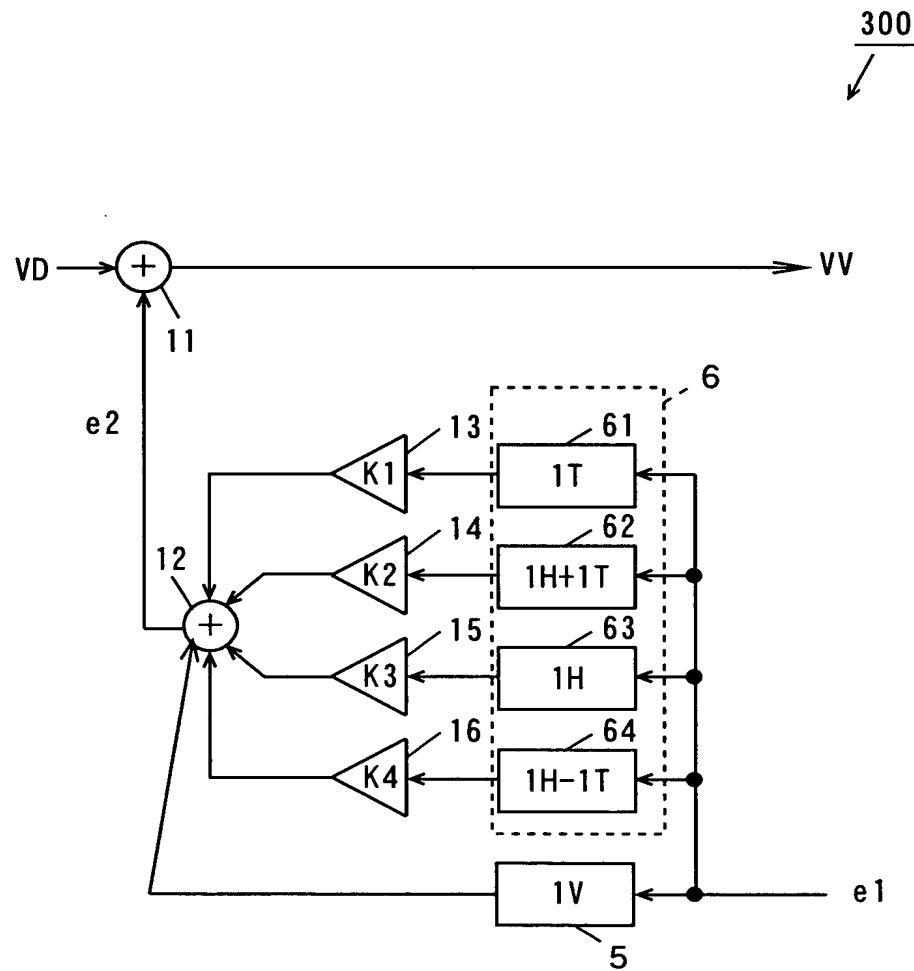


FIG. 7

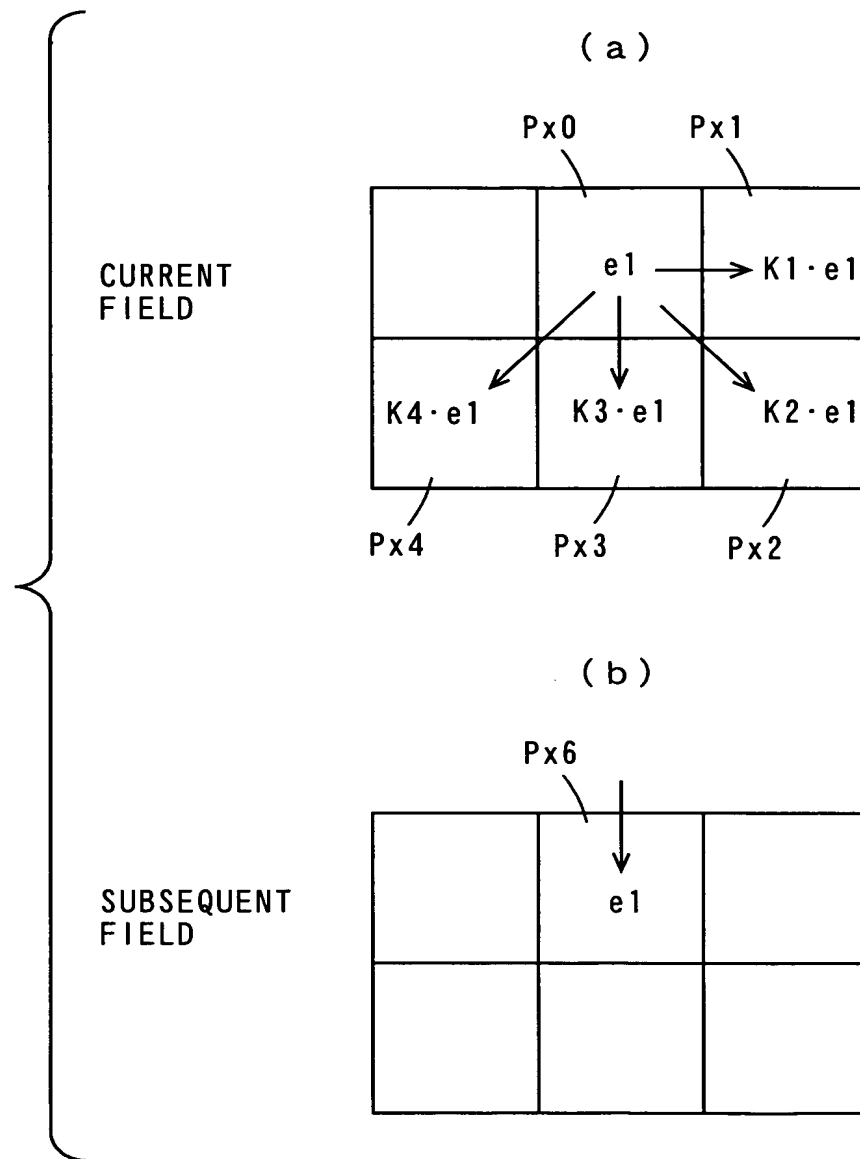


Fig. 8a

GRAY SCALE LEVEL	SUB- FIELD	10	9	8	7	6	5	4	3	2	1	FIRST DITHER VALUE
	WEIGHT	512	256	128	64	32	16	8	4	2	1	
12	7	0	0	0	0	0	0	0	1	1	1	-5
13	11	0	0	0	0	0	0	1	0	1	1	-2
14	11	0	0	0	0	0	0	1	0	1	1	-3
15	11	0	0	0	0	0	0	1	0	1	1	-4
16	13	0	0	0	0	0	0	1	1	0	1	-3
17	13	0	0	0	0	0	0	1	1	0	1	-4
18	13	0	0	0	0	0	0	1	1	0	1	-5
19	13	0	0	0	0	0	0	1	1	0	1	-6
20	14	0	0	0	0	0	0	1	1	1	0	-6
21	14	0	0	0	0	0	0	1	1	1	0	-7
22	14	0	0	0	0	0	0	1	1	1	0	-8
23	15	0	0	0	0	0	0	1	1	1	1	-8
24	15	0	0	0	0	0	0	1	1	1	1	-9
25	15	0	0	0	0	0	0	1	1	1	1	-10
26	22	0	0	0	0	0	1	0	1	1	0	-4
27	23	0	0	0	0	0	1	0	1	1	1	-4
28	23	0	0	0	0	0	1	0	1	1	1	-5
29	23	0	0	0	0	0	1	0	1	1	1	-6
30	23	0	0	0	0	0	1	0	1	1	1	-7
31	23	0	0	0	0	0	1	0	1	1	1	-8
32	23	0	0	0	0	0	1	0	1	1	1	-9

FIRST GRAY SCALE
VALUE

FIRST EMISSION PATTERN

F i g . 8 b

GRAY SCALE LEVEL	SUB- FIELD	10	9	8	7	6	5	4	3	2	1	SECOND DITHER VALUE
	WEIGHT	512	256	128	64	32	16	8	4	2	1	
12	11	0	0	0	0	0	0	1	0	1	1	-1
13	13	0	0	0	0	0	0	1	1	0	1	0
14	13	0	0	0	0	0	0	1	1	0	1	-1
15	13	0	0	0	0	0	0	1	1	0	1	-2
16	14	0	0	0	0	0	0	1	1	1	0	-2
17	14	0	0	0	0	0	0	1	1	1	0	-3
18	14	0	0	0	0	0	0	1	1	1	0	-4
19	15	0	0	0	0	0	0	1	1	1	1	-4
20	15	0	0	0	0	0	0	1	1	1	1	-5
21	15	0	0	0	0	0	0	1	1	1	1	-6
22	22	0	0	0	0	0	1	0	1	1	0	0
23	22	0	0	0	0	0	1	0	1	1	0	-1
24	23	0	0	0	0	0	1	0	1	1	1	-1
25	27	0	0	0	0	0	1	1	0	1	1	2
26	27	0	0	0	0	0	1	1	0	1	1	1
27	27	0	0	0	0	0	1	1	0	1	1	0
28	27	0	0	0	0	0	1	1	0	1	1	-1
29	27	0	0	0	0	0	1	1	0	1	1	-2
30	27	0	0	0	0	0	1	1	0	1	1	-3
31	27	0	0	0	0	0	1	1	0	1	1	-4
32	27	0	0	0	0	0	1	1	0	1	1	-5

SECOND GRAY SCALE
LEVEL

SECOND EMISSION PATTERN

Fig. 8c

GRAY SCALE LEVEL	SUB- FIELD	10	9	8	7	6	5	4	3	2	1	THIRD DITHER VALUE
	WEIGHT	512	256	128	64	32	16	8	4	2	1	
12	14	0	0	0	0	0	0	1	1	1	0	2
13	14	0	0	0	0	0	0	1	1	1	0	1
14	14	0	0	0	0	0	0	1	1	1	0	0
15	14	0	0	0	0	0	0	1	1	1	0	-1
16	15	0	0	0	0	0	0	1	1	1	1	-1
17	15	0	0	0	0	0	0	1	1	1	1	-2
18	22	0	0	0	0	0	1	0	1	1	0	4
19	22	0	0	0	0	0	1	0	1	1	0	3
20	23	0	0	0	0	0	1	0	1	1	1	3
21	26	0	0	0	0	0	1	1	0	1	0	5
22	26	0	0	0	0	0	1	1	0	1	0	4
23	26	0	0	0	0	0	1	1	0	1	0	3
24	28	0	0	0	0	0	1	1	1	0	0	4
25	28	0	0	0	0	0	1	1	1	0	0	3
26	28	0	0	0	0	0	1	1	1	0	0	2
27	28	0	0	0	0	0	1	1	1	0	0	1
28	29	0	0	0	0	0	1	1	1	0	1	1
29	29	0	0	0	0	0	1	1	1	0	1	0
30	29	0	0	0	0	0	1	1	1	0	1	-1
31	29	0	0	0	0	0	1	1	1	0	1	-2
32	31	0	0	0	0	0	1	1	1	1	1	-1

THIRD GRAY SCALE
LEVEL

THIRD EMISSION PATTERN

F i g . 8 d

GRAY SCALE LEVEL	SUB- FIELD	10	9	8	7	6	5	4	3	2	1	FOURTH DITHER VALUE
	WEIGHT	512	256	128	64	32	16	8	4	2	1	
12	15	0	0	0	0	0	0	1	1	1	1	3
13	15	0	0	0	0	0	0	1	1	1	1	2
14	15	0	0	0	0	0	0	1	1	1	1	1
15	23	0	0	0	0	0	1	0	1	1	1	8
16	23	0	0	0	0	0	1	0	1	1	1	7
17	23	0	0	0	0	0	1	0	1	1	1	6
18	26	0	0	0	0	0	1	1	0	1	0	8
19	26	0	0	0	0	0	1	1	0	1	0	7
20	28	0	0	0	0	0	1	1	1	0	0	8
21	28	0	0	0	0	0	1	1	1	0	0	7
22	28	0	0	0	0	0	1	1	1	0	0	6
23	29	0	0	0	0	0	1	1	1	0	1	6
24	30	0	0	0	0	0	1	1	1	1	0	6
25	30	0	0	0	0	0	1	1	1	1	0	5
26	30	0	0	0	0	0	1	1	1	1	0	4
27	30	0	0	0	0	0	1	1	1	1	0	3
28	30	0	0	0	0	0	1	1	1	1	0	2
29	30	0	0	0	0	0	1	1	1	1	0	1
30	30	0	0	0	0	0	1	1	1	1	0	0
31	46	0	0	0	0	1	0	1	1	1	0	15
32	47	0	0	0	0	1	0	1	1	1	1	15

FOURTH GRAY SCALE
LEVEL

FOURTH EMISSION PATTERN

F i g . 8 e

GRAY SCALE LEVEL	FIRST GRAY SCALE VALUE	SECOND GRAY SCALE LEVEL	THIRD GRAY SCALE LEVEL	FOURTH GRAY SCALE LEVEL	AVERAGE VALUE	ERROR
12	7	11	14	15	11.75	0.25
13	11	13	14	15	13.25	-0.25
14	11	13	14	15	13.25	0.75
15	11	13	14	23	15.25	-0.25
16	13	14	15	23	16.25	-0.25
17	13	14	15	23	16.25	0.75
18	13	14	22	26	18.75	-0.75
19	13	15	22	26	19	0.00
20	14	15	23	28	20	0.00
21	14	15	26	28	20.75	0.25
22	14	22	26	28	22.5	-0.50
23	15	22	26	29	23	0.00
24	15	23	28	30	24	0.00
25	15	27	28	30	25	0.00
26	22	27	28	30	26.75	-0.75
27	23	27	28	30	27	0.00
28	23	27	29	30	27.25	0.75
29	23	27	29	30	27.25	1.75
30	23	27	29	30	27.25	2.75
31	23	27	29	46	31.25	-0.25
32	23	27	31	47	32	0.00

Fig. 10a

GRAY SCALE LEVEL	SUB- FIELD	10	9	8	7	6	5	4	3	2	1	FIRST DITHER VALUE
	WEIGHT	512	256	128	64	32	16	8	4	2	1	
12	10	0	0	0	0	0	0	1	0	1	0	-2
13	10	0	0	0	0	0	0	1	0	1	0	-3
14	11	0	0	0	0	0	0	1	0	1	1	-3
15	11	0	0	0	0	0	0	1	0	1	1	-4
16	13	0	0	0	0	0	0	1	1	0	1	-3
17	13	0	0	0	0	0	0	1	1	0	1	-4
18	14	0	0	0	0	0	0	1	1	1	0	-4
19	14	0	0	0	0	0	0	1	1	1	0	-5
20	14	0	0	0	0	0	0	1	1	1	0	-6
21	15	0	0	0	0	0	0	1	1	1	1	-6
22	15	0	0	0	0	0	0	1	1	1	1	-7
23	21	0	0	0	0	0	1	0	1	0	1	-2
24	21	0	0	0	0	0	1	0	1	0	1	-3
25	22	0	0	0	0	0	1	0	1	1	0	-3
26	22	0	0	0	0	0	1	0	1	1	0	-4
27	23	0	0	0	0	0	1	0	1	1	1	-4
28	26	0	0	0	0	0	1	1	0	1	0	-2
29	26	0	0	0	0	0	1	1	0	1	0	-3
30	27	0	0	0	0	0	1	1	0	1	1	-3
31	27	0	0	0	0	0	1	1	0	1	1	-4
32	27	0	0	0	0	0	1	1	0	1	1	-5

FIRST GRAY SCALE
VALUE

FIRST EMISSION PATTERN

Fig. 10b

GRAY SCALE LEVEL	SUB- FIELD	10	9	8	7	6	5	4	3	2	1	SECOND DITHER VALUE
	WEIGHT	512	256	128	64	32	16	8	4	2	1	
12	11	0	0	0	0	0	0	1	0	1	1	-1
13	13	0	0	0	0	0	0	1	1	0	1	0
14	13	0	0	0	0	0	0	1	1	0	1	-1
15	13	0	0	0	0	0	0	1	1	0	1	-2
16	14	0	0	0	0	0	0	1	1	1	0	-2
17	14	0	0	0	0	0	0	1	1	1	0	-3
18	15	0	0	0	0	0	0	1	1	1	1	-3
19	15	0	0	0	0	0	0	1	1	1	1	-4
20	21	0	0	0	0	0	1	0	1	0	1	1
21	21	0	0	0	0	0	1	0	1	0	1	0
22	22	0	0	0	0	0	1	0	1	1	0	0
23	22	0	0	0	0	0	1	0	1	1	0	-1
24	22	0	0	0	0	0	1	0	1	1	0	-2
25	23	0	0	0	0	0	1	0	1	1	1	-2
26	26	0	0	0	0	0	1	1	0	1	0	0
27	26	0	0	0	0	0	1	1	0	1	0	-1
28	27	0	0	0	0	0	1	1	0	1	1	-1
29	29	0	0	0	0	0	1	1	1	0	1	0
30	29	0	0	0	0	0	1	1	1	0	1	-1
31	29	0	0	0	0	0	1	1	1	0	1	-2
32	29	0	0	0	0	0	1	1	1	0	1	-3

SECOND GRAY SCALE
LEVEL

SECOND EMISSION PATTERN

Fig. 10c

GRAY SCALE LEVEL	SUB- FIELD	10	9	8	7	6	5	4	3	2	1	THIRD DITHER VALUE
	WEIGHT	512	256	128	64	32	16	8	4	2	1	
12	13	0	0	0	0	0	0	1	1	0	1	1
13	14	0	0	0	0	0	0	1	1	1	0	1
14	14	0	0	0	0	0	0	1	1	1	0	0
15	15	0	0	0	0	0	0	1	1	1	1	0
16	15	0	0	0	0	0	0	1	1	1	1	-1
17	21	0	0	0	0	0	1	0	1	0	1	4
18	21	0	0	0	0	0	1	0	1	0	1	3
19	22	0	0	0	0	0	1	0	1	1	0	3
20	22	0	0	0	0	0	1	0	1	1	0	2
21	22	0	0	0	0	0	1	0	1	1	0	1
22	23	0	0	0	0	0	1	0	1	1	1	1
23	23	0	0	0	0	0	1	0	1	1	1	0
24	26	0	0	0	0	0	1	1	0	1	0	2
25	26	0	0	0	0	0	1	1	0	1	0	1
26	27	0	0	0	0	0	1	1	0	1	1	1
27	29	0	0	0	0	0	1	1	1	0	1	2
28	29	0	0	0	0	0	1	1	1	0	1	1
29	30	0	0	0	0	0	1	1	1	1	0	1
30	30	0	0	0	0	0	1	1	1	1	0	0
31	30	0	0	0	0	0	1	1	1	1	0	-1
32	30	0	0	0	0	0	1	1	1	1	0	-2

THIRD GRAY SCALE
LEVEL

THIRD EMISSION PATTERN

Fig. 10d

GRAY SCALE LEVEL	SUB- FIELD	10	9	8	7	6	5	4	3	2	1	FOURTH DITHER VALUE
	WEIGHT	512	256	128	64	32	16	8	4	2	1	
12	14	0	0	0	0	0	0	1	1	1	0	2
13	15	0	0	0	0	0	0	1	1	1	1	2
14	21	0	0	0	0	0	1	0	1	0	1	7
15	21	0	0	0	0	0	1	0	1	0	1	6
16	22	0	0	0	0	0	1	0	1	1	0	6
17	22	0	0	0	0	0	1	0	1	1	0	5
18	22	0	0	0	0	0	1	0	1	1	0	4
19	23	0	0	0	0	0	1	0	1	1	1	4
20	23	0	0	0	0	0	1	0	1	1	1	3
21	26	0	0	0	0	0	1	1	0	1	0	5
22	26	0	0	0	0	0	1	1	0	1	0	4
23	26	0	0	0	0	0	1	1	0	1	0	3
24	27	0	0	0	0	0	1	1	0	1	1	3
25	29	0	0	0	0	0	1	1	1	0	1	4
26	29	0	0	0	0	0	1	1	1	0	1	3
27	30	0	0	0	0	0	1	1	1	1	0	3
28	30	0	0	0	0	0	1	1	1	1	0	2
29	31	0	0	0	0	0	1	1	1	1	1	2
30	31	0	0	0	0	0	1	1	1	1	1	1
31	31	0	0	0	0	0	1	1	1	1	1	0
32	42	0	0	0	0	1	0	1	0	1	0	10

FOURTH GRAY SCALE
LEVEL

FOURTH EMISSION PATTERN

F i g. 1 0 e

GRAY SCALE LEVEL	FIRST GRAY SCALE VALUE	SECOND GRAY SCALE LEVEL	THIRD GRAY SCALE LEVEL	FOURTH GRAY SCALE LEVEL	AVERAGE VALUE	ERROR
12	10	11	13	14	12	0.00
13	10	13	14	15	13	0.00
14	11	13	14	21	14.75	-0.75
15	11	13	15	21	15	0.00
16	13	14	15	22	16	0.00
17	13	14	21	22	17.5	-0.50
18	14	15	21	22	18	0.00
19	14	15	22	23	18.5	0.50
20	14	21	22	23	20	0.00
21	15	21	22	26	21	0.00
22	15	22	23	26	21.5	0.50
23	21	22	23	26	23	0.00
24	21	22	26	27	24	0.00
25	22	23	26	29	25	0.00
26	22	26	27	29	26	0.00
27	23	26	29	30	27	0.00
28	26	27	29	30	28	0.00
29	26	29	30	31	29	0.00
30	27	29	30	31	29.25	0.75
31	27	29	30	31	29.25	1.75
32	27	29	30	42	32	0.00

FIG. 11 PRIOR ART

